

IASC Statement

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Ambassador Härkönen, Distinguished Colleagues,

My name is Allen Pope and since the beginning of the year, I have taken on the role of IASC's Executive Secretary, now based in Akureyri, Iceland. I should note that IASC is also represented here by Gosia Smieszek, former IASC early career Fellow and leader of IASC's Action Group on Connecting Arctic Scientists to Policymakers. We appreciate the opportunity that meetings such as this provide to advance international and interdisciplinary scientific understanding and cooperation.

The rapid changes in the Arctic and the role of the Arctic in influencing global climate dynamics are of interest to all 23 of our member countries, most of which are represented here today. So, I am happy to use this opportunity to share how IASC is supporting activities to research and reduce pollution of the Arctic environment.

IASC's thematic scientific working groups drive our work. In particular, Arctic air pollution is a priority area of our Atmosphere Working Group, having key influences on Arctic climate through trace gas and aerosol forcing, being harmful to Arctic communities and ecosystems, and mediating important high latitude climate feedbacks. The Atmosphere Working Group is also teaming up with our Social & Human Working group to explore themes of Arctic socioeconomic development, local air pollution, and its societal as well as ecosystem impacts.

For the past few years, IASC has endorsed and supported PACES, which is the (admittedly somewhat forced) acronym for "air Pollution in the Arctic: Climate, Environment, and Societies." PACES aims to review existing knowledge and foster new research on the sources and fate of Arctic air pollution, its impacts on climate, health, and ecosystems, on the feedbacks between pollution and natural sources, and on societal perspectives, including sustainability, adaptation and economic feedbacks.

Key scientific highlights from a PACES meeting this summer include the following:

- Long-range transport of pollution to the Arctic is intimately linked to Arctic climate change and changes in large-scale circulation patterns but such linkages require improved quantification.
- Natural sources of trace constituents in the Arctic such as dust aerosols or biogenic hydrocarbons, and their potential evolution as a result of climate change, are poorly constrained.

- Large uncertainties surround the formation and processing of local air pollution under very cold, dry, stable conditions in the Arctic.
- Model treatments of wet deposition and chemical/aerosol processing are still significant and are motivating the planning of a new field experiment (IMPAACT) designed to sample air masses during transport of pollution from Asia to the Arctic.

IASC will be supporting multiple interdisciplinary PACES workshops in 2018, including one focusing on implementation of a field study encompassing (a) community based monitoring, (b) investigations of residents' perception of Arctic air pollution and (c) mapping of air quality relevant regulatory contexts as well as (d) soil- and vegetation-specific parameters that would characterize terrestrial ecosystem dynamics and pollution impacts.

As mentioned by the United States yesterday, IASC also supports pollution monitoring by co-leading the Sustaining Arctic Observing Networks (SAON), whose strategic framework is under review within SAON and IASC at the moment.

In the future, I hope the Arctic Council continues to see IASC as a close scientific partner and as a network which you can tap for expertise.

We hope to see many of you at this coming June's Polar2018 conference and Arctic Observing Summit in Davos, Switzerland. Abstracts for Polar2018 are due at the end of the month, and there is an entire theme on Environment, including multiple sessions related to pollution in the polar regions.

Thank you again for this opportunity for the International Arctic Science Committee to contribute to the meeting.